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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,875	01/21/2004	Jeffrey P. Few	FLOWD.65079	3172

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EXAMINER	
HUYNH, KHOA D	

ART UNIT	PAPER NUMBER
3751	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/761,875	FEW, JEFFREY P.	
	Examiner	Art Unit	
	Khoa D. Huynh	3751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 August 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *25 and 26* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16,18-24 and 27* is/are rejected.

7)☒ Claim(s) *17* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *21 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *01/21/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Invention I in the reply filed on 08/23/05 is acknowledged. Claims 1-24 and 27 are readable on the election invention. Claims 25 and 26 have been withdrawn from further consideration as being drawn to the non-elected invention.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the remove and replacement port coupling to the effluent radiator port as recited in claim 1, and a fluid replacement pathway routing...to said effluent port of the radiator as recited in claim 1 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

3. Figure 12 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate

changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 8-12 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 8 recites the limitation "said primary fluid supply tank" in line 3. There is insufficient antecedent basis for this limitation in the claim.

Claims 9-12 and 20 depend on claim 8 and are likewise indefinite.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-7, 14-16, 19, 21-24 and 27, as presently understood, are rejected under 35 U.S.C. 102(e) as being anticipated by Flynn (US 2004/0079442 A1).

Regarding claims 1, 24 and 27, the Flynn reference discloses a radiator fluid exchanging apparatus. The apparatus includes a first fluid supply tank (14) having a first and second outlets (at 16 and the end of element 37), a pressure vessel (20) for collecting waste fluid and including a waste fluid coupling in communication with the interior of the pressure vessel and defining a waste fluid collection inlet (at 22) and a waste fluid exhaust (at 24), a pressure generator (schematically shown as 37 in Fig. 2) coupled to pressure vessel and being operable to selectively directed wasted fluid into the pressure vessel under negative or vacuum pressure, and a remove and fill control manifold (one of the directional element labeled as 32) coupled to the pressure vessel and the first fluid supply tank. The remove and fill control manifold further includes a remove and replacement port (Fig. 2 schematically shows one of the element 32 having three ports) for coupling to the effluent radiator port, a waste fluid collection pathway (about 26) for routing the wasted fluid, and a fluid replacement pathway (at 33) for routing the supply fluid. The apparatus also includes a flush control manifold (other directional elements as shown in Figures 2-5) coupled to the first fluid supply tank and the pressure vessel. The flush control manifold further includes a fluid supply pathway between on the outlets and a pump exhaust outlet and further defines a drain pathway for routing the collected waste fluid

exiting to the outlet (Fig. 5). The apparatus also includes a pump (34) having a fluid receiving inlet and fluid directing outlet. The pump is selectively operated to direct the supply fluid from the first supply tank into the fluid receiving inlet and out of the fluid directing outlet when flush control manifold is selectively positioned to open the fluid supply pathway.

Regarding claims 2 and 4, the apparatus also includes a fluid removal and replacement conduit (26,30) including a first end coupled to the remove and replacement port and a free end (at 12) for coupling to the port of the radiator (Fig. 2). The apparatus also includes a fluid supply conduit (33,30) including a first end coupled to the fluid directing outlet and a free end (at 12) for coupling to the port of the radiator

Regarding claim 3, the apparatus also includes a fluid supply conduit (30) including a first end coupled to the fluid directing outlet and a free end (at 12) for coupling to the port of the radiator.

Regarding claims 5 and 6, as schematically shown in Figure 8, the Flynn reference also discloses that the apparatus could include an auxiliary fluid supply tank (56 or 58) for supplying additional fluid to the radiator and having a multi-directional coupling with first and second auxiliary fluid supply outlets in communication with an auxiliary tube inlet, wherein the outlets being in communication with one of the manifolds. One of the auxiliary fluid supply outlets is in communication with the flush control manifold, and the flush control manifold includes an auxiliary fluid supply pathway.

Regarding claim 21, as schematically shown in Figure 8, one of the auxiliary fluid supply outlets is in communication with the remove and fill control manifold, and the remove and fill control manifold includes a third fluid supply pathway.

Regarding claim 7, the apparatus also includes a wheel cabinet (Fig. 1) for containing and enclosing the tanks, the pressure vessel, the pump and the manifolds.

Regarding claim 14, the free end (at 12) is coupled to a cone adapter having a seal with a throughborre (Fig. 7).

Regarding claim 15, the free end (at 12) is coupled to an open-ended wand adapter (Fig. 7).

Regarding claim 16, the free end (at 12) is coupled to an open-ended wand adapter (Fig. 7).

Regarding claim 19, as schematically shown in Figure 2, the apparatus also includes a pressure gauge (the clock-like element) in fluid communication with the remove and fill manifold.

Regarding claims 22 and 23, the method as claimed would be inherent during the normal use and operation of the Flynn device.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 8-13 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Flynn (as discussed above) in view of Few (6830082).

Regarding claim 8, the Flynn reference DIFFERS in that it does not specifically include level fluid sensors as claimed. Attention, however, is directed to the Few reference which discloses another fluid exchanging apparatus for an automobile having level fluid sensors (Fig. 34) for measuring the fluid levels in the supply tank and the waste tank. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Flynn reference by employing fluid level sensors in the first supply tank and the pressure vessel, in view of the teaching of Few, in order to properly detect the levels of the fluid in the tanks so that tanks could be dump or refill as needed. The Few reference also discloses a main board in electrical communication with each of the level sensors.

Regarding claim 9, the Flynn reference also DIFFERS in that it does not specifically include a level fluid sensor for the auxiliary tank as claimed. Attention, however, is directed to the Few reference which discloses another fluid exchanging apparatus for an automobile having level fluid sensors (Fig. 34) for measuring the fluid levels in the tanks. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the Flynn reference by employing a fluid level sensor in the auxiliary

tank, in view of the teaching of Few, in order to properly detect the levels of the fluid in the tanks so that tanks could be dump or refill as needed.

Regarding claims 10-12 and 20, the Few reference also discloses a circuit having a capacitor element that is in communication with the sensors (col. 37, lines 19-26). Even though the Few reference does not specifically disclose that the capacitor element provides the circuit a time delay as claimed, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the capacitor element with the delay mechanism for a predetermined period of approximately 7-11 seconds. Such use of the capacitor element with a delay mechanism would be considered a mere choice of a preferred delay circuit on the basis of its suitability of the intended use (see cited US 5743357, col. 8, lines 40-49, as evidence of a capacitor delay circuit for sensors).

Regarding claim 13, the Few reference also discloses a quick connect/disconnect and a ball valve (223, 225) for opening and closing the conduit.

Regarding claim 18, even though the Flynn reference does not specifically disclose that the control manifolds are balls valves as claimed, it would have been obvious to one of ordinary skill in the art at the time the invention was made to employ the ball valves for the Flynn control manifolds. Such modification would be considered a mere choice of preferred ball valves for the control manifold on the basis of its suitability of the intended use (see cited US 6481469).

Allowable Subject Matter

10. Claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure and could be used to formulate a rejection, i.e. a final rejection if needed. Awad (2005/0166991), Awad (2004/0103955), Awad (2005/0205119), Awad (2004/0065347), Viken, Bedi, Clark II, Suratt and Few et al. (6886606) were cited to a fluid exchanging apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khoa D. Huynh whose telephone number is (571) 272-4888. The examiner can normally be reached on M-F (7:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khoa D. Huynh
Primary Examiner
Art Unit 3751

HK
10/31/2005